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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,629	12/08/2000	David A. Brown	2037.2014-000	2407
21005	7590	12/15/2004	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			HOM, SHICK C	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/733,629	<b>Applicant(s)</b> BROWN, DAVID A.	
	<b>Examiner</b> Shick C Hom	<b>Art Unit</b> 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 7/16/04, 9/30/04.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/16/04, 9/30/04</u> . | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1, 5, 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamada et al. (6,452,908).

Regarding claims 1, 5, and 9:

Yamada et al. disclose the method and apparatus for updating a lookup table (see col. 4 lines 42-60 and col. 16 line 60 to col. 17 line 12 which recite the table comprising the route data including the route data updating circuit and process) comprising the steps of: providing access to a first set of routes and associated first subtree entry stored in a first memory space in the lookup table through a first pointer to the first subtree entry (see col. 3 line 61 to col. 4 line 5 which recite the memory storing the route tree table having a tree structure of a plurality of nodes and col. 16 lines 20-31 which recite the use of a pointer to acquire the route data in the table); and storing a second set of routes and associated second subtree entry in a second memory space in the lookup table while access is provided to the first set of routes stored in the first memory space by the first pointer (see col. 4 lines 15-34 which recite the left and right child nodes clearly reads on the first and second set of routes and col. 16 lines 19-31 which recite the use of a pointer clearly reads on accessing the set of routes through the corresponding first and second pointer); and switching access to the second set of routes

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stored in the second memory by replacing the first pointer stored to the first subtree entry with a second pointer to the second subtree entry (see col. 4 lines 6-14 which recite the step of repeatedly referring to the route tree table by setting the current node data as the first or second next node data reads on replacing the first pointer with a second pointer).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2, 6, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (6,452,908) in view of Kanamori et al. (6,338,079).

Regarding claims 2, 6, and 10:

For claims 2, 6, and 10, Yamada et al. disclose the apparatus and method described in paragraph 4 of this office action. Yamada et al. disclose all the subject matter of the

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claimed invention with the exception of deallocating the first memory space after switching access.

Kanamori et al. from the same or similar fields of endeavor teach that it is known to provide the step and means for deallocating the first memory space after switching access (see col. 1 line 42 to col. 2 line 14). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the step and means for deallocating the first memory space after switching access as taught by Kanamori et al. in the communications method and apparatus of Yamada et al. The step and means for deallocating the first memory space after switching access can be implemented by connecting a resource manager to the lookup table for deallocating the memory space of the set of routes of Yamada et al. The motivation for using the step and means of deallocating the first memory space after switching access as taught by Kanamori et al. in the communication method and apparatus of Yamada et al. being that it provides more efficiency for the system since the system can reuse the memory space for other sets of routes.

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7. Claims 3-4, 7-8, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (6,452,908) in view of Beshai et al. (6,744,775).

Regarding claims 3-4, 7-8, and 11-12:

For claims 3-4, 7-8, and 11-12, Yamada et al. disclose the apparatus and method described in paragraph 4 of this office action. Yamada et al. disclose all the subject matter of the claimed invention with the exception of wherein the number of routes in the first set of routes is less than the number of routes in the second set of routes as in claims 3, 7, 8; and wherein the number of routes in the first set of routes is greater than the number of routes in the second set of routes as in claims 4, 8, 12.

Beshai et al. from the same or similar fields of endeavor teach that it is known to provide wherein the number of routes in the first set of routes is less than the number of routes in the second set of routes; and wherein the number of routes in the first set of routes is greater than the number of routes in the second set of routes (see col. 5 line 56 to col. 6 line 13 which recite that the number of routes in the route sets vary considerably). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide wherein the number of routes in the first set of

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routes is less than the number of routes in the second set of routes; and wherein the number of routes in the first set of routes is greater than the number of routes in the second set of routes as taught by Beshai et al. in the communications method and apparatus of Yamada et al. The number of routes in the first set of routes being less than the number of routes in the second set of routes; and wherein the number of routes in the first set of routes being greater than the number of routes in the second set of routes can be implemented by replacing the routing table of Beshai et al. for the table of Yamada et al. The motivation for using the first and second set of routes as taught by Beshai et al. in the communication method and apparatus of Yamada et al. being that it provides the added feature of permitting more general purpose application of the routing system.

### **Conclusion**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tzeng discloses high speed routing using compressed tree process.

Wicklund discloses VP/VC lookup function.



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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Monday to Friday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH



DANINGTON  
PRIMARY EXAMINER